The City of Baltimore

Loch Raven Dam Rehabilitation

Project Update: December, 2003

Over 60,000 Safe Hours Logged

http://cityservices.baltimorecity.gov/dpw/lochravendam/lrdam.html

Roller Compacted Concrete Placement Begins!

In November, the contractor began placing roller compacted concrete (RCC) on the east side spillway of the dam. Despite record-breaking precipitation over the past year, and constant flows over the spillway since February, the contractor has completed excavation on the east side and is now placing concrete. To maximize efficiency, the contractor is working 6 days a week and through the night during concrete placement.



The Johnson-Ross Bandit 12 mixing plant can produce 800 - 1,000 tons of RCC per day.

Roller bucket

Stilling basin

RCC (shown in green above) adds mass to dam face and stilling basin. The roller bucket and stilling basin reduce the energy of the overflow, thereby reducing erosion downstream.

Conventional concrete will be used to finish the roller bucket and spillway facing.

RCC is transported to the work area via electronically-controlled conveyors that can be stopped automatically if a problem occurs.





A "Creeter Crane" delivers RCC from the conveyor directly to where it is needed. The crane has a fully retractable arm that can be moved 365 degrees. Heavy equipment is then used to spread and roll the RCC.



and Sand
Storage

LR Drive

Zebra
Mixing
Mussel
Facility

Overflow
(Gunpowder
River)

Creeter
Crane

RCC Placement East Side

Aggregate

Recently Completed Work

- East side excavation

Ongoing Work

- Rock anchor installation
- RCC placement
- Gate house rehabilitation

Upcoming Work

 RCC placement - spillway and non-overflow section: east side



October: excavation is complete



November: concrete placement begins



December: RCC placement in the stilling basin is complete (covered, on left) and has begun on the spillway section of the dam.